Appl. No. 10/780,484 25771 US1

Amdt. Dated **04/22/2009**

Reply to Office action of: 01/23/2009

LISTING OF THE CLAIMS

1. (previously presented) A composition for delivering a polynucleotide to a mammalian cell comprising: a membrane active polynucleotide conjugate wherein:

- a) the polyamine has molecular weight greater than 10,000 daltons;
- b) the polyamine is linked to the polynucleotide via a labile covalent bond; and,
- c) one or more amines on the polyamine are reversibly modified by attachment of functional groups via pH labile covalent bonds wherein breakage of the pH labile covalent bonds in response to a decrease in pH results in cleavage of the functional groups from the polyamine and restoration of the amines on the polyamine.
- 2. (canceled)
- 3. (previously presented) The composition of claim 1 wherein the polynucleotides consists of an oligonucleotide.
- 4. (original) The composition of claim 3 wherein the polynucleotide is selected from the group consisting of: dsRNA, siRNA, microRNA, siRNA expression cassette, antisense oligonucleotide and ribozyme.
- 5. (previously presented) The composition of claim 1 wherein two or more polynucleotides are covalently linked to the polyamine.
- 6. (previously presented) The composition of claim 1 wherein the polyamine consists of a polyvinyl ether.
- 7. (previously presented) The composition of claim 1 wherein the polyamine consists of an amphipathic polymer.
- 8. (canceled)
- 9. (canceled)
- 10. (previously presented) A composition for delivering a biologically active compound to a cell comprising: a membrane active polyamine-biologically active compound conjugate wherein the polymer is linked to the biologically active compound via a labile covalent bond and one or more amines on the polymer are reversibly modified by attachment of functional groups via labile covalent bonds wherein breakage of the labile covalent bonds results in cleavage of the functional groups from the polyamine and restoration of the amines on the polyamine.
- 11. (original) The composition of claim 10 wherein the biologically active compound comprises a polynucleotide.

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- (original) The composition of claim 11 wherein the polynucleotides consists of an 12. oligonucleotide.
- 13. (original) The composition of claim 12 wherein the polynucleotide is selected from the group consisting of: dsRNA, siRNA, microRNA, siRNA expression cassette, antisense oligonucleotide and ribozyme.
- 14. (original) The composition of claim 10 wherein 2 or more polynucleotides are covalently linked to the polyamine.
- 15. (original) The composition of claim 10 wherein the polyamine consists of an amphipathic polymer.
- (original) The composition of claim 10 wherein the polyamine consists of a polyvinyl 16. ether.
- 17. (original) The composition of claim 10 wherein the polyamine consists of a peptide.
- 18. (original) The composition of claim 17 wherein the peptide comprises pardaxin.
- 19. (previously presented) A method for delivering a biologically active compound to a cell comprising:
 - a) attaching the biologically active compound to an amphipathic membrane active polyamine via a labile bond to form a conjugate,
 - b) reversibly modifying amines on the amphipathic membrane active polyamine by covalent attachment of functional groups to the amines via labile bonds wherein cleavage of the labile bonds restores the amines on the amphipathic membrane active polyamine; and,
 - c) contacting the cell with the conjugate.
- 20. (original) The method of claim 19 wherein the biologically active compound comprises a polynucleotide.